



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/536,952	03/28/2000	Carl E. Clark	POU9-2000-0030-US1	5903

7590 12/24/2003
Kevin P Radigan Esq
Heslin & Rothenberg P C
5 Columbia Circle
Albany, NY 12203

EXAMINER

OPIE, GEORGE L

ART UNIT	PAPER NUMBER
----------	--------------

2126

DATE MAILED: 12/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/536,952		Clark et al.	
	Examiner		Art Unit	
	George L. Opie		2126	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) ☐ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ☐ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) ☐ is/are objected to.
- 8) ☐ Claim(s) ☐ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ☐ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ☐ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) ☐.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- | | |
|--|--|
| 14) <input type="checkbox"/> Notice of References Cited (PTO-892) | 17) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). <input type="checkbox"/> . |
| 15) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 18) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 16) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <input type="checkbox"/> . | 19) <input type="checkbox"/> Other: <input type="checkbox"/> . |

Art Unit: 2126

DETAILED ACTION

This Office Action is responsive to Applicant's request for reconsideration, filed 30 September 2003.

The Office acknowledges Applicant's inclusion of an electronic copy of the amendment on a 3½inch floppy disk, and the Office would like to thank Applicant for submitting the amendment in electronic form to expedite its processing.

1. The U.S. Patents used in the art rejections below have been provided as text documents which correspond to the U.S. Patents. The relevant portions of the text documents are cited according to page and line numbers in the art rejections below. For the convenience of Applicant, the cited sections are highlighted in the *text documents*. Consistent with Office procedure, the U.S. Patents corresponding to the *text documents* are also included with this action.

2. Claim Rejections - 35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-31 are rejected under 35 U.S.C. § 102(b) as being anticipated by Clark et al. (U.S. Patent 5,361,356).

As to claim 1, Clark teaches a method for producing a secure subspace for a transaction (invention . . . protects subspace data and programs from inadvertent accesses from other subspaces, p1 28-57) comprising:

from an operating system task (operating system dispatch program, p8 25-34) attaching a subtask that will restrict application addressing (restrict the addressability of each of these programs, p7 30-56) and

wherein said attaching includes defining a subspace address environment as home space (definition of a subspace group of address spaces, involving the storing of an identifier of the group, p13 12-40) within a dispatchable unit access

Art Unit: 2126

list (DU-AL) associated with said subtask (dispatching process for a task ... contains a DUALD, Id.).

As to claim 2, Clark teaches a system of restricting "programs that are in basespace/subspace types of address spaces in a single family group", p7 30-56, and inherent in this would be the instantiation of the recited first and second tasks, subspaces and applications that implement the secure isolation operations for multiple families to execute separated transactions.

As to claim 3, Clark (p8 11-24) teaches "isolation by not providing a transaction with information for accessing its calling program in another address space."

As to claim 4, Clark (p10 7-18) teaches the "operating system ... is mapped into all address spaces it supports."

As to claims 5-6, note the claim 2 discussion supra.

As to claim 7, Clark (p13 12-40) teaches "for each task to be done by the computer. . . several associated control blocks are generated by the operating system" including the "DU-AL 66 . . . which contain the real addresses for locating the ASTEs which respectively represent all subspaces".

As to claim 8, Clark (abstract) teaches the "BSG instruction has an operand defining a general register containing the target virtual address and an associated access register containing an access-list-entry-token (ALET) defining the target address space.

As to claims 9-10, note the claim 2 discussion supra.

As to claims 11-20, note the rejections of claims 1-10 above. Claims 11-20 are the same as claims 1-10 except claims 11-20 are computer program product claims and claims 1-10 are method claims.

As to claims 21-30, note the rejections of claims 1-10 above. Claims 21-30 are the same as claims 1-10 except claims 21-30 are apparatus claims and claims 1-10 are method claims.

As to claim 31, note the rejection of claim 1 above. The limitations in claim 31 are functionally equivalent to the claim 1 limitations.

Art Unit: 2126

4. The prior art of record and not relied upon is considered pertinent to the applicant's disclosure. Each reference disclosed below is relevant to one or more of the Applicant's claimed invention.

U.S. Patent No. 5,745,676 to Hobson et al. which teaches the secure execution of program groups using subspace identification/allocation;

U.S. Patent No. 5,493,661 to Alpert et al. which teaches the insertion of multiple programs applying the DU-AL control for transaction isolation;

U.S. Patent No. 5,319,758 to Arai et al. which teaches the creation of subspaces and home space with respect to program groupings;

U.S. Patent No. 4,979,098 to Baum et al. which teaches the fundamental algorithm and structures in secured subspace operations for transaction efficacy.

5. Response to Applicant's Arguments:

Applicant argues (claims 1, 11, 21 and 31) that Clark's prior teachings do not meet the limitation "from an operating system task, attaching a subtask that will restrict application addressing". Contrary to Applicant's contention, the disclosure in Mr. Clark's previous patent does teach the recited "attaching a subtask" from an OS task as broadly claimed. Clark clearly conveys the details of creating a secure subspace with a subtask, from an OS task as shown in the rejection of claim 1 supra. Clark describes the "defining a subspace address environment", p13 12-40 within a dispatchable unit access list. The subspace definition is a process that emanates from the machines operating system. Clark's prior art performs the securing subspace as a procedure stemming from an operating system process (p8 25-34) to restrict the application addressing as broadly claimed. Furthermore, all of the computing operations, functions and subtasks executing on the system are attached/originated from OS tasks.

The scope of the claimed attaching a subtask "from an OS task" clearly transcends the more narrow scope that Applicant attempts to impute through argument. Claimed subject matter, not the specification is the measure of the invention. Limitations in the specification cannot be read into the claims for the purpose of avoiding the prior art, *In re Self*, 213 USPQ 1,5 (CCPA 1982); *In re Priest*, 199 USPQ 11, 15 (CCPA 1978). The claimed limitation "from an operating system task" is clearly subject to a broad interpretation, as detailed in the rejections maintained above. The Examiner has a *duty* and *responsibility* to the public and to Applicant to interpret the claims *as broadly as reasonably possible* during prosecution (see *In re Prater*, 56 CCPA 1381, 415F.2d 1393, 162 USPQ 541 (1969)).

In considering the address restricting and OS recitations, it is noted that Applicant uses terminology that has broad meaning in the art, and thus requires

Art Unit: 2126

a broad interpretation of the claims in determining patentability of the disclosed invention. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Applicant should set forth claims in language that clearly, distinctly, unambiguously and uniquely define the invention. The fact that Applicant has not narrowed the definition/scope of the current claims implies that Applicant intends an extensive coverage breadth of the claims, which is clearly met by Clark's prior art teachings.

Applicant's arguments have been fully considered but are not deemed to be persuasive. For the reasons detailed above, the claim rejections are maintained as set forth supra.

The Office acknowledges Applicant's inclusion of an electronic copy of the amendment on a 3½ inch floppy disk, and the Office would like to thank Applicant for submitting the amendment in electronic form to expedite its processing.

6. THIS ACTION IS MADE FINAL.

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

7. **Request for copy of Applicant's response on floppy disk:**

Please help expedite the prosecution of this application by including, along with your amendment response in paper form, an electronic file copy in WordPerfect, Microsoft Word, or in ASCII text format on a 3½ inch IBM format floppy disk.

Please include all pending claims along with your responsive remarks. Only the paper copy will be entered – your floppy disk file will be considered a duplicate copy. Signatures are not required on the disk copy. The floppy disk copy is not mandatory; however, it will help expedite the processing of your application. Your cooperation is appreciated.

Art Unit: 2126

8. Contact Information:

PTO Policy for Facsimile Submissions:

- ☐ AFTER-FINAL faxes must be signed and sent to (703) 746-7238.
- ☐ OFFICIAL faxes must be signed and sent to (703) 746-7239.
- ☐ NON OFFICIAL faxes should be sent to (703) 746-7240.

All OFFICIAL faxes will be handled and entered by the docketing personnel. The date of entry will correspond to the actual FAX reception date unless that date is a Saturday, Sunday, or a Federal Holiday within the District of Columbia, in which case the official date of receipt will be the next business day. The application file will be promptly forwarded to the Examiner unless the application file must be sent to another area of the Office, e.g., Finance Division for fee charging, etc.

- ☐ All responses sent by U.S. Mail should be mailed to:

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

- ☐ Hand-delivered responses should be brought to Crystal Park Two, 2021 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist). All hand-delivered responses will be handled and entered by the docketing personnel. Please do not hand deliver responses directly to the Examiner.

- ☐ Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at **(703) 305-9600**.

- ☐ Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Opie at (703) 308-9120 or via e-mail at *George.Opie@uspto.gov*. Internet e-mail should not be used where sensitive data will be exchanged or where there exists a possibility that sensitive data could be identified unless there is an express waiver of the confidentiality requirements under 35 U.S.C. 122 by the Applicant. Sensitive data includes confidential information related to patent applications.


ZARNI MAUNG
PRIMARY EXAMINER